Oct. 1, 1929. R. W. COBB 1,730,118

VISIBLE DISPENSING DEVICE

Filed May 29, 1929

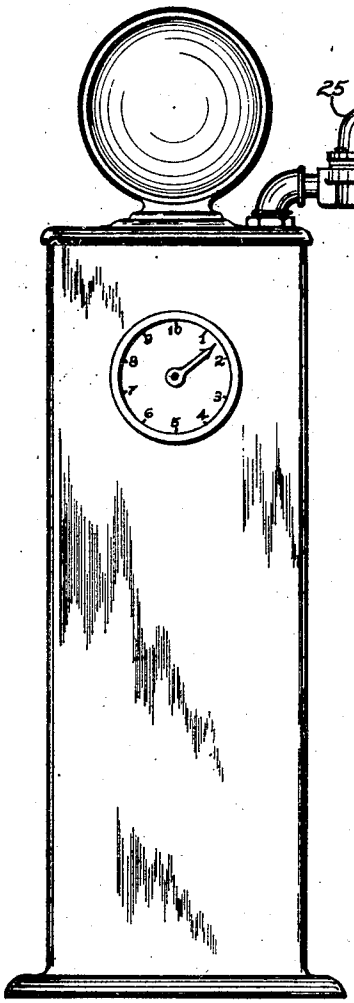



FIG - I

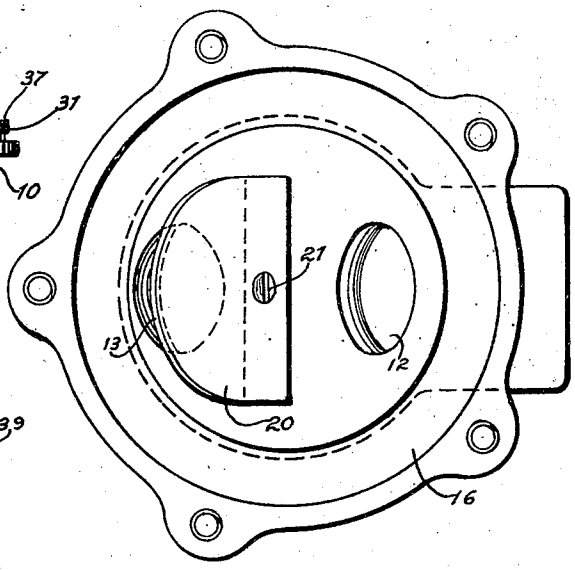



FIG - 3

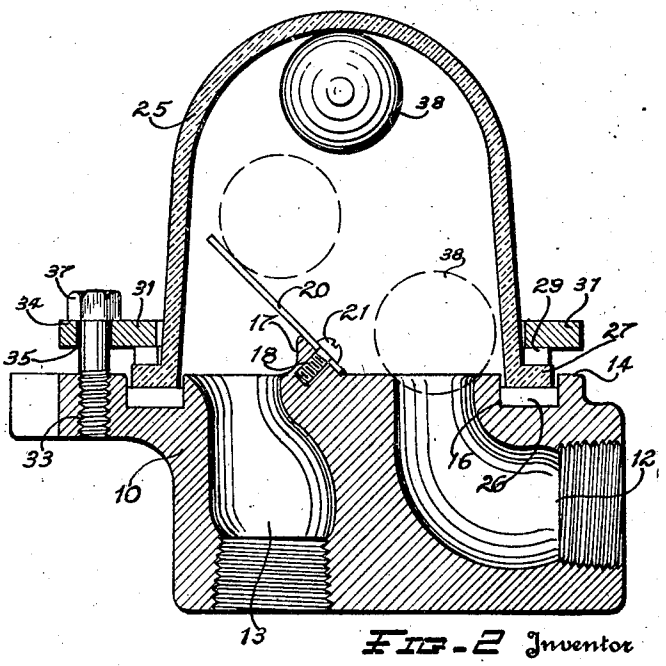



FIG - 2

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# UNITED STATES PATENT OFFICE

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## VISIBLE DISPENSING DEVICE

Application filed May 29, 1929. Serial No. 366,880.

This invention relates to an improvement in a visible dispensing device for gasoline pumps and the like.

In its preferred embodiment this invention contemplates the provision of a device adapted to be mounted upon a gasoline pump of the wet or dry hose type whereby the actual dispensing of gasoline is visibly brought to the attention of the purchaser thereof.

Prior to this invention devices of this general type have been in use but, due to regulations in certain States relating to the visible dispensing of gasoline, these devices fail to fulfill the purpose intended. Since the States are not wholly in accord in their requirements it is essential that a visible dispensing device embodying all the required features be provided. Applicant has therefore produced a device which, while indicating the flow of gasoline therethrough, also prevents the accumulation of air in the dispensing line and which is equally applicable for use in conjunction with pumps of the wet or dry hose type.

The principal object of this invention is to provide a device of this class indicative of the amount of gasoline contained within the transparent dome through which the gasoline must pass during the dispensing operation.

Another object of this invention is to provide a device of this class which clearly indicates to the purchaser that gasoline is actually being dispensed.

A further object of this invention is to provide a device of this class of economical construction and adaptable for both wet and dry hose type pumps and which complies with the laws of certain States relating to the visible dispensing of gasoline.

Other and further objects of this invention will appear from a consideration of the following specification taken in conjunction with the accompanying drawing, and in which

Fig. 1 is a front elevation of a gasoline pump of the wet hose type showing one modification of this invention mounted thereon;

Fig. 2 is an enlarged vertical sectional view of the invention, showing the inlet and outlet passages for the gasoline and the means by which oscillation of the gasoline within the dome is obtained; and

Fig. 3 is a plan view of the device with the glass dome removed disclosing further structural details of this invention.

Referring to the drawing and particularly to Figure 2 thereof, this invention comprises a base generally indicated by the reference numeral 10. The base 10 is provided with a gasoline inlet passage 12 and outlet passage 13. Encircling the passages 12 and 13 and formed in the upper face 14 of the base is an annular depression or recess 16. Centrally of the face 14 an angular boss 17 is provided. A threaded opening 18 is provided in the slanted face of the boss 17 and a deflector or baffle plate 20 is secured to this face by means of the screw 21. The plate 20, being mounted substantially at a forty-five degree angle to the face 14 of the base 10, closely approaches the substantially vertical wall of the glass dome 25. The purpose of this is to insure sufficient oscillation of the liquid as it passes through the dome to indicate to a purchaser that the pump is working and gasoline is being dispensed.

Mounted within the annular recess 16 is a suitable gasket 26. The glass dome 25, terminating in a flanged rim 27, is adapted to rest within the depression 16 upon the gasket 26. A second gasket 29 is placed upon the upper face of the rim 27 of the glass dome and a clamping ring 31 rests upon the gasket 29.

Extending downwardly from the upper face 14 of the base 10 and exteriorly of the recess 16 are a plurality of threaded openings 33. The clamping ring 31 is provided with outwardly extending bosses 34 each of which has formed therein a vertical opening 35, the number of openings 35 corresponding to the number of drilled openings 33. The glass dome 25 is drawn down into sealing engagement with the gasket 26 through the use of bolts 37.

Located within the glass dome and prior to the mounting thereof upon the base 10 is a ball 38 formed from cork or other suitable floating substance. When this device is used

in connection with gasoline pumps of the dry hose type, the normal position of rest of the ball 38 is substantially as shown in dotted lines, Figure 2 of the drawing, covering the inlet opening 12. However, when this device is in use upon a pump of the wet hose type as illustrated in Figure 1, the ball occupies a position of rest adjacent the head of the glass dome as shown in full line of Figure 2. A wet hose type pump maintains gasoline at all times in the system directly down to the nozzle of the dispensing hose, whereas, a pump of the dry hose type is required to be operated to cause gasoline to flow through the glass dome 25, passage 13 and hose 39.

The above described device, although applicable for use upon pumps of either the dry or wet hose type, is used more often upon the latter type. This is due to the fact that nearly all types of dry hose pumps are provided with a visible gasoline container from which dispensing takes place. However with a pump such as shown in the drawing, there is no visible means of indicating that gasoline is acuually being dispensed without the attachment of applicant's device.

When the pump is first operated or directly after having run dry, no gasoline is contained within the glass dome 25 and the float rests upon the mouth of the passageway 12. During the first dispensing operation, following the above condition, air must be forced out of the entire system. Any air within the pump will be moved by the inrush of gasoline into and through the dome 25 and out through the hose 39. It is found, however, that a certain amount of air collects within the head of the dome, being held there under pressure of the gasoline. Thus, when further dispensing is carried on, the pump will fail to give absolutely accurate measure. The laws of certain States require that no such condition exist and consequently applicant through the use of the float 38 and plate 20 is able to instantly cause the removal of an air pocket in the dispensing dome. As gasoline enters the passageway 12 it moves upwardly toward the top of the dome and, following the contour thereof, is directed upon the plate 20. A part of the gasoline passes out through the passageway 13 and the remainder sets up a swirling motion causing the float 38 to oscillate rapidly about the dome. With each oscillation of the float it causes a small amount of air to pass out through the passageway 13 until only gasoline remains within the dome. It is to be understood that the motion of the float about the dome is very rapid and consequently any air pocketed in said dome is removed almost instantly. It is to be further understood that, except under conditions as above described, the dome will be filled at all times with gasoline and the float will rest against the top of the dome.

Attention is directed to the fact that a customer need only watch the glass dome and the float within it to determine whether or not gasoline is being properly dispensed.

The purpose of this device when used in conjunction with pumps of the dry hose type is identical. However, when this type of pump is not operating the float rests upon the mouth of the passageway 12 where it can receive and be oscillated by the first flow of gasoline into the dome.

While only one modification of this invention has been shown and described, applicant does not intend to be limited thereto since it is obvious that other modifications and adaptations may be made without departing from the spirit and scope of this invention as set forth in the following claims.

Having thus set forth my invention what I claim is new and for which I desire protection by Letters Patent is:

1. A visible liquid dispensing device comprising a base having inlet and outlet passageways, a transparent dome mounted upon said base and means adapted to cause a swirling motion of the liquid and any air contained within said dome whereby said air is caused to flow through said outlet passageway with said liquid.

2. A visible liquid dispensing device comprising a base, walls defining an annular recess in the face of said base, inlet and outlet passageways opening into the face of said base within said annular recess, a transparent dome mounted within said recess, and means adapted to indicate any movement of liquid and air contained in said device, said means also causing said air to pass through said outlet passageway with said liquid.

3. A visible liquid dispensing device comprising a base having an annular recess formed in the face thereof, inlet and outlet passageways opening into the face of said base within said recess, a deflecting plate mounted upon said base between said passageways, a transparent dome mounted within said recess and enclosing the openings of said passageways and deflecting plate, and means adapted to indicate movement of both air and liquid within said device said means also causing said air to pass through said outlet passageway with said liquid.

4. A visible liquid dispensing device comprising a base having an anular recess formed in the face thereof, inlet and outlet passageways opening into the face of said base and lying within said annular recess, a transparent dome enclosing said passageways and mounted within said recess, a free and unattached float located within said dome and means adapted to cause a swirling motion of the liquid when passing through said dome whereby said float will be greatly oscillated and cause any air contained in

said dome to pass through said outlet passageway with said liquid.

5. A visible liquid dispensing device comprising a base having an annular recess formed in the face thereof, inlet and outlet passageways opening into the face of said base within said recess, a deflecting plate mounted upon said base between said passageways, a transparent dome mounted upon said base and in engagement with the walls of said annular recess and a free and unattached float located within said dome, said liquid being adapted to strike said plate, set up a swirling motion and oscillate said float whereby air contained within said dome is caused to pass through said outlet passageway with said liquid.

In testimony whereof I have affixed my signature.

ROBERT W. COBB.